

**Notice of Allowability**

Application No.

10/634,219

Examiner

Hoang V. Nguyen

Applicant(s)

RAWNICK ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on 19 January 2005.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 05 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/8/04
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other \_\_\_\_\_



**HOANG V. NGUYEN**  
**PRIMARY EXAMINER**

***Response to Arguments***

1. Applicant's arguments, filed on 19 January 2005, with respect to claims 1-10, 12-16 and 18-22 have been fully considered and are persuasive. The 35 USC 102 (e) rejections of claims 1-10, 12-16 and 18-22 have been withdrawn.

***Allowable Subject Matter***

2. Claims 1-22 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, none of the prior art, either taken alone or in combination, fairly teaches or suggests a selectable sub-reflector antenna system comprising a main reflector; a sub-reflector disposed apart from the main reflector and having at least one cavity; at least one fluidic dielectric having a permittivity and a permeability; at least one composition processor for dynamically changing a composition of the fluidic dielectric to vary at least one of the permittivity and the permeability in the at least one cavity; and a controller for controlling the composition processor to selectively vary at least one of the permittivity and permeability in the at least one cavity.

Claims 2-11 are allowed for depending on claim 1.

Regarding claim 12, none of the prior art, either taken alone or in combination, fairly teaches or suggests a selectable sub-reflector antenna system comprising a main reflector; a sub-reflector disposed apart from the main reflector and having at least one cavity; at least one fluidic dielectric having a permittivity and a permeability; and at least one fluidic pump for moving the

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at least one fluidic dielectric among at least one cavity and a reservoir for adding and removing the fluidic dielectric to the at least one cavity in response to a control signal.

Claims 13-17 are allowed for depending on claim 12.

Regarding claim 18, none of the prior art, either taken alone or in combination, fairly teaches or suggests a method for selectively activating a sub-reflector in a reflector antenna system comprising the steps of reflecting a first radiated signal from the sub-reflector from a first source toward a main reflector in a first mode wherein the sub-reflector is activated using at least a fluidic dielectric; and transmitting a second radiated signal through the sub-reflector from a second source toward the main reflector in a second mode wherein the sub-reflector is inactivated at least in part by changing the fluidic dielectric.

Claims 19-22 are allowed for depending on claim 18.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Correspondence*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang V. Nguyen whose telephone number is (571) 272-1825. The examiner can normally be reached on Mondays-Fridays from 9:00 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Nguyen can be reached on (571) 272-1825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hvn  
2/25/05



**HOANG V. NGUYEN  
PRIMARY EXAMINER**